United States Department of the Interior
Bureau of Land Management
Royal Gorge Field Office
3028 E. Main Street
Cañon City, CO 81212

Environmental Assessment

Mineral Materials Quarry Development
Mica White Quarry Expansion

DOI-BLM-CO-200-2012-0068 EA

December, 2012

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CHAPTER 1 - INTRODUCTION

1.1 IDENTIFYING INFORMATION

CASEFILE/PROJECT NUMBER (optional): DOI-BLM-CO-200-2012-0068 EA

PROJECT TITLE: Mica White Mine Boundary Development

PLANNING UNIT: Arkansas River Subregion #1

LEGAL DESCRIPTION: New Mexico Principle Meridian, Fremont, T. 48 N., R. 11 E., sec. 6, lots 1, 2, 7, 8, and 9.

APPLICANT: Colorado Quarries, Inc.

1.2 INTRODUCTION AND BACKGROUND

Colorado Quarries ("Tezak") has been operating a mica mine in Alkali Gulch, located east of Howard, Colorado since 1992 (Figure 1). The original mining operation is just less than 10 acres in size and is currently under a Mineral Materials contract with the BLM and a mining permit with the Colorado Division of Reclamation, Mining and Safety (CDRMS). The primary product being produced by the existing mine is mica, used as landscape rock and aquarium stone. The mine has a steep working face, which has created on-going slope stability problems. Additional development would create larger, more stable benches thereby allowing production to safely continue.

An application was submitted by Tezak to CDRMS on February 17, 2012 that proposed converting the existing 110c permit to a 112c permit, amending the current operation to include an additional 23.7-acres of disturbance, a 4.6-acre stockpile site, and to change the north cut slope to 2:1 slope to correct the slope failure problems. This proposal was approved by CDRMS on July 24, 2012, and the BLM on April 10, 2012, which included a "right of entry" for the proposed operations on BLM, managed surface lands and mineral estate. BLM reviewed the bond posted by Mica White to accommodate for the additional project acreage.

1.3 PURPOSE AND NEED

The purpose of the action is to make federal mineral materials, located east of Howard, Colorado, available through a non-competitive sale process. BLM has a multiple-use mission, set forth in the Federal Land Policy and Management Act of 1976, which mandates that we manage public land resources for a variety of uses. These uses include mining, and more specifically in this case, the disposal of mineral materials. One of BLM's priorities for minerals management in Colorado is to make the mineral materials from public land available for energy development

and urban growth, including timely processing of applications for purchase of mineral materials for use in exploration and development of renewable and conventional energy mineral resources and infrastructure and community developments.

Per 30 USC Sec. 1602 (01/03/2012), The Congress declares that it is the continuing policy of the United States to promote an adequate and stable supply of materials necessary to maintain national security, economic well-being and industrial production with appropriate attention to a long-term balance between resource production, energy use, a healthy environment, natural resources conservation, and social needs. The Congress further declares that implementation of this policy requires that the President shall, through the Executive Office of the President, coordinate the responsible departments and agencies to, among other measures, 1) identify materials needs and assist in the pursuit of measures that would assure the availability of materials critical to commerce, the economy, and national security and 2) encourage Federal agencies to facilitate availability and development of domestic resources to meet critical materials needs.

The original mine operation was analyzed under NEPA EA No. CO-050-RG-92-38. However, because the purpose of the additional development differs from the original project, a standalone EA is needed for this proposal. BLM will decide if the proposed project will result in significant impacts during the EA process. Results and any mitigation developed through the NEPA process will be forwarded to CDRMS for inclusion into their permitting process.

Based on this regulatory structure, the following actions and alternatives will be analyzed:
1. Proposed Action
2. No Action Alternative

BLM will determine if the proposed project will result in no significant impacts (either because none exist or if they do exist, they can be adequately mitigated during the EA process. Results and any mitigation developed through this environmental assessment and resulting decision document will be forwarded to CDRMS and Fremont County for inclusion into their permitting processes.

1.4 DECISION TO BE MADE

The BLM will decide whether to approve the proposed mine development project based on the analysis contained in this Environmental Assessment (EA). This EA will analyze additional development of the existing mine area from 10 to 30-acres to improve slope stability and overall mine safety. Additionally, this EA will analyze what visual impacts this additional development will have on the casual observer. The BLM may choose to: a) accept the project as proposed, b) accept the project with modifications/ mitigation, c) accept an alternative to the proposed action, or d) not authorize the project at this time. The finding associated with this EA may not constitute the final approval for the proposed action.

1.5 PLAN CONFORMANCE REVIEW

PLAN CONFORMANCE REVIEW: The Proposed Action is subject to and has been reviewed for conformance with the following plan (43 CFR 1610.5, BLM 1617.3):

Name of Plan: Royal Gorge Resource Area, Resource Management Plan (RMP)

Date Approved: May, 1996

Decision Number/Page: Decision 1-40/Page 2-4-7; Decision 1-41/Page 2-1-8

Decision Language:
1-40 – Areas will be open to mineral entry and available for mineral materials development administered under existing regulations, limited by closure if necessary and special mitigation will be developed to protect values on a case-by-case basis;

1-41 – Areas will be open to mineral entry and available for mineral materials development under standard mineral operating practices.

In January 1997, the Colorado State Office of the BLM approved the Standards for Public Land Health and amended all RMPs in the State. Standards describe the conditions needed to sustain public land health and apply to all uses of public lands.

Standard 1: Upland soils exhibit infiltration and permeability rates that are appropriate to soil type, climate, land form, and geologic processes.

Standard 2: Riparian systems associated with both running and standing water function properly and have the ability to recover from major disturbance such as fire, severe grazing, or 100-year floods.

Standard 3: Healthy, productive plant and animal communities of native and other desirable species are maintained at viable population levels commensurate with the species and habitat's potential.

Standard 4: Special status, threatened and endangered species (federal and state), and other plants and animals officially designated by the BLM, and their habitats are maintained or enhanced by sustaining healthy, native plant and animal communities.

Standard 5: The water quality of all water bodies, including ground water where applicable, located on or influenced by BLM lands will achieve or exceed the Water Quality Standards established by the State of Colorado.

Because standards exist for each of these five categories, a finding must be made for each of them in an environmental analysis. These findings are located in Chapter 3 of this document.

1.6 SCOPING, PUBLIC INVOLVEMENT AND ISSUES

1.6.1 Scoping: The principal goals of scoping are to allow public participation to identify issues, concerns, and potential impacts that require detailed analysis.

Persons/Public/Agencies Consulted: Scoping, by posting this project on the Royal Gorge Field Office NEPA website and ongoing coordination between BLM and CDMRS was the primary mechanism used by the BLM to initially identify issues. No comments were received.

Issues Identified:
No issues were identified during public scoping.

CHAPTER 2 - PROPOSED ACTION AND ALTERNATIVES

2.1 INTRODUCTION

The proposed action will expand the existing mine boundary, from 10 to 30 acres, thereby increasing the mine life for at least 10 additional years. The proposed increase of Life of Mine would consist of operations that mirror the current mining operations, which has been in production since 1992. This additional development is anticipated to improve slope stability, and minimize visual impacts to the casual observer. Slope failure has been an ongoing problem, due to the current design of the working face, 80-feet high with a near vertical slope. As a result, the operator was required by BLM and the Colorado Division of Reclamation, Mining, and Safety (CDRMS) to engineer a new design for the face. This effort involves pulling back the working face to create a 2:1 slope (maximum), with 20 foot benches. The creation of these larger benches, and overall flattening of the slopes, will eliminate the slope stability problems. Additionally, the flattening of the slopes will minimize the visual impacts to the casual observer, as the lowering of bench height will make the final contrast between the material color of the working face and the adjacent natural landscape much less visible from key observation points along Highway 50.

2.2 ALTERNATIVES ANALYZED IN DETAIL

2.2.1 Proposed Action

General

The proposed action is to extend the existing mine boundary, from 10 to 30 acres. This additional development will improve slope stability, and minimize visual impacts to the casual observer. The mine will expand to the north and south of its existing permit boundary, and will use existing access roads. Earlier this year, the operator was required by BLM and the Colorado Division of Reclamation, Mining, and Safety (CDRMS) to engineer a new design for the face. This design change is due to ongoing slope failure problems, as the current design of the working face is 80-feet high with a near vertical slope. The Mining Plan consists of the following:

1. Open pit mining will cause surface disturbance.
2. Mining is performed utilizing excavators, dozers and wheel loaders. The pit is a wall and bench design by mining with excavators and pushing over face with dozer to loader. Pit floor is process site using jaw crusher, cone crusher and screening.
3. Mine face drainage is directed to pit floor to impoundment area shown on mine plan map.
4. Due to the topography at this site, approximately 20 acres should be maximum disturbance at any one time.
5. Phases of mining operations as shown on Figure 4.

a. First phase is to mine to the east-southeast creating a cup-shaped eastern wall. The construct of the wall will have a 2:1 slope with 20 feet wide benches. Total area to be impacted in this phase is approximately 3 acres.
b. Second phase is to mine to the south creating a south pit wall. The construct of the wall will have a 2:1 slope with 20 feet wide benches. This phase of mining may not fully extend to the property boundary or occur at all depending on the quality of the deposit. For the purpose of this assessment, we will include this phase as though it will be completed in its entirety. A substantial amount of impure rock is expected in this area and may not be cost efficient to mine. Total area to be impacted in this phase is approximately 15 acres.
c. Third phase is to mine northward creating a north pit wall and extending the east pit wall. Mining in this phase will stop short of Alkali Gulch creating a buffer zone around the drainage. The construct of the wall will have a 2:1 slope with 20 feet wide benches. Total area to be impacted in this phase is approximately 15 acres.

6. The mine does not produce a lot of annual tonnage, so it will take numerous years to achieve completion on each phase.
    a. First phase: near completion and will be finished in 3-7 years.
    b. Second phase: expected to begin in 1-2 years and take 10 years to complete.
    c. Third phase: expected to begin in 1-10 years and take 15 or more years to complete.
7. Depth and thickness shown on map. Schist type material when encountered will be saved and used to cover completed benches.
8. (A)Primary commodities are as follows: architectural exposed aggregates, landscape stone and aquarium stone. (B)Secondary commodities are a minor amount of road gravel. (C)Incidental products will be landscape boulders and road gravel.
9. No explosives will be used at this site.

Additionally, the flattening of the slopes will minimize the visual impacts to the casual observer, as the lowering of bench height will make the final contrast between the material color of the working face and the adjacent natural landscape much less visible from key observation points along Highway 50. See the "Visual Resources" section for additional discussion on this topic.

The operator has already coordinated with the Colorado Department of Public Health and Environment (CDPHE) to meet state requirements for both air and stormwater on their proposed, expanded operation. The operator has also consulted with the Natural Resources Conservation Service to obtain information on the soil types of this site and appropriate seeding requirements for successful reclamation.

This area will become part of the mine permit boundary, as recognized by both BLM and CDRMS. The operator will amend the existing Mine and Reclamation Plan to include the proposed staging area and full reclamation will commence upon completion of mining activities.

The existing performance and reclamation bond being held by CDRMS will be re-calculated by both agencies to include this additional activity. Any additional financial warranty required will have to be posted by the operator prior to initiating these proposed activities.

Current Permits
The following is a summary of the permits that will either be modified or apply to include the proposed development:

- **Permit #M1992-058 CN-01(Appendix A)**
  State of Colorado Construction Material Regular (112) Operation Reclamation permit
    - Administered by Colorado Division of Reclamation, Mining and Safety (CDRMS)
    - Permit expiration is Life of Mine

- **Permit #COR341628 and associated Stormwater Management Plan (Appendix B)**
  CDPS General Permit for Stormwater Discharges Associated with Sand and Gravel Mining and Processing Authorization to Discharge under the Colorado Discharge Permit System
    - Administered by Colorado Department of Public Health and Environment (CDPHE), Water Quality Control Division
    - Certification expiration is 09/30/2012; extended for administrative purposes

- **State of Colorado Air Permits**
  Permit #09FR0073
    - State of Colorado APEN for Hewitt- Robbins 20-36 Jaw Crusher Stationary Source
    - Administered by CDPHE, Air Pollution Control Division
    - Permit issued on 07/07/2009

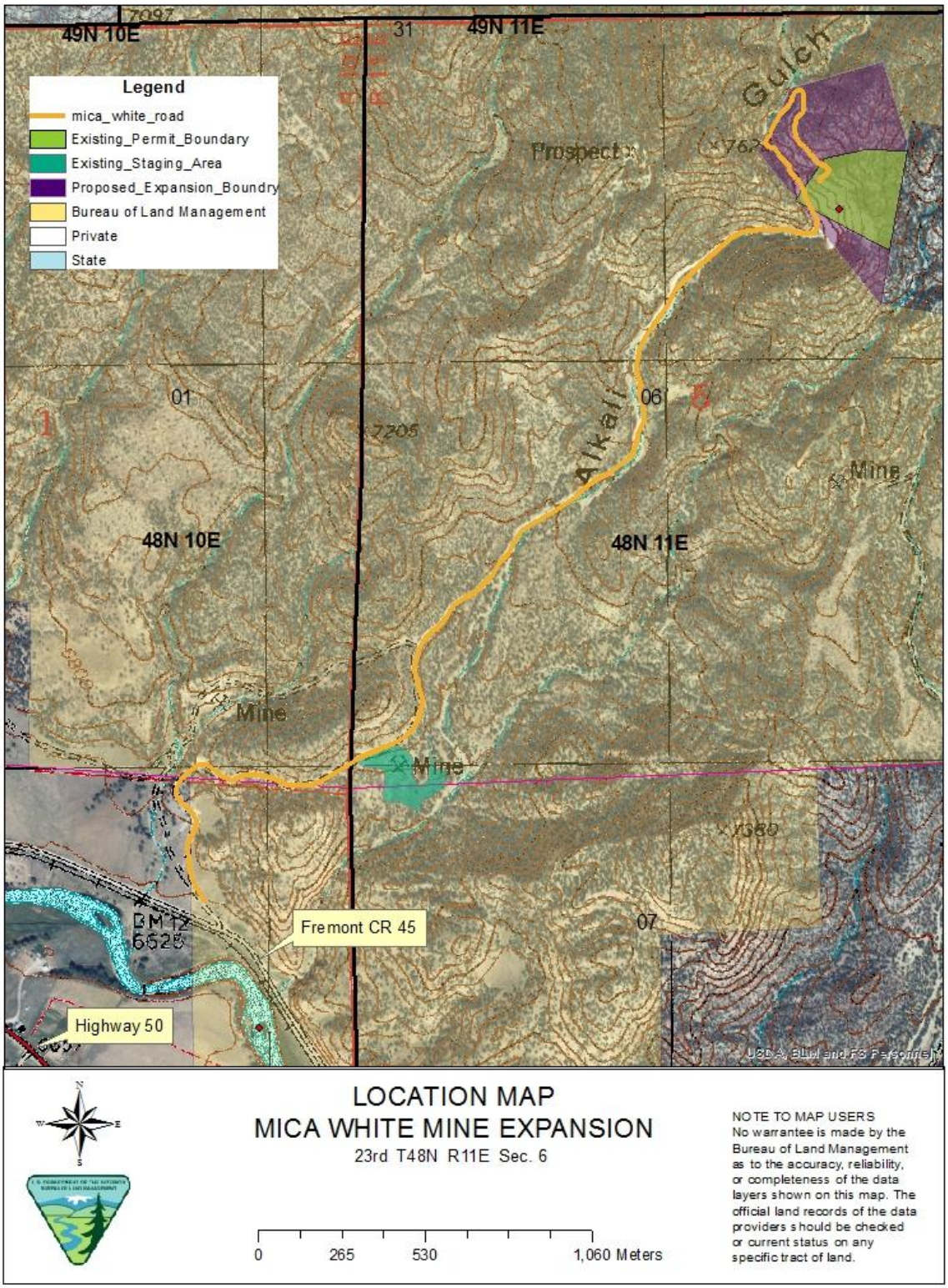
- **Mine ID #0504199**
  Per the Federal Mine Safety & Health Act of 1977 each coal or other mine, the products of which enter commerce, or the operations or products of which affect commerce, and each operator of such mine, and every miner in such mine shall be subject to the provisions of this Act.
    - Administered by the Mine Safety and Health Administration (MSHA)
    - This Mine ID indicates that the mine is registered with MSHA and subject to their regulations regarding the health and safety of the operator's employees
    - Mine ID expiration is Life of Mine

- **Permit # CUP 02-6 Tezak Heavy Equipment Company Inc. / Mica White**
  Fremont County Conditional Use Permit
    - Permit is for the operation of a specialty stone mine, including dozing, crushing and screening, loading, and hauling of mica rock products.
    - Administered by Fremont County, Colorado
    - The subject property is located in Fremont County zone of agricultural forestry. Per the Fremont County Master Plan, mining is an acceptable activity in this area
    - Permit expiration is Life of Mine

Reclamation plan, acreage impact, and timing of completion have changed slightly from the original plan. The new reclamation plan is as follows.

Reclamation Plan

1. This site is BLM mineral and surface ownership. The reclamation plan is a joint effort with the BLM to achieve a positive post mining product as well as keeping the visual impact to the public in mind.
2. There is virtually no topsoil at this site. Any top material which may sustain plant growth will be salvaged for placement on benches. Schist type material which is found in random pockets and usually fairly well decomposed will be salvaged for reclamation.
3. The design and reclamation plan for each wall is identical.
    a. Design: Walls will be completed with a 2:1 slope and 20 feet wide benches. The benches will be sloped to the wall and drainage directed of either end of each cut onto the pit floor. Pit floor is designed with a 10:1 slope to the southeast where a sediment pond is constructed to hold the runoff.
    b. Reclamation: Benches will be covered with 6-12" of dark-colored schist recovered from the mining operation. This material will be placed on benches with a loader and graded to final slope with a dozer within 5 days after completion except for the north wall. The dark-colored schist material will also be placed on faces of the east and north walls visible to the public. Placement of material on faces will take place with loader and excavator and final grading with excavator and dozer. Final steps in the reclamation of benches will include placement of boulders, planting trees and seeding as soon as is practical.
4. Post mining land use for this site is rangeland and wildlife habitat. Re-vegetation plan is per NRCS recommendations.
5. A timeline for completion is difficult to determine due to the low annual tonnage and whether or not some areas with substantial impurities will be mined. An estimate follows.
    a. Phase 1: in operation and expected to be completed in 3-7 years.
    b. Phase 2: expected to begin 1-2 years and completion expected in 10 years.
    c. Phase 3: expected to begin 1-10 years and completion expected in 15 or more years.
6. Total acreage impacted:
    a. East Wall: approximately 2 acres at 2:1 slope
    b. South Wall: approximately 1.5acres at 2:1 slope
    c. North Wall: approximately 15 acres at 2:1 slope
    d. Pit Floor: approximately 6 acres at 10:1 slope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31
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Bureau of Land Management
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Alkali
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48N 11E
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Highway 50
LOCATION MAP
MICA WHITE MINE EXPANSION
23rd T48N R11E Sec. 6
0
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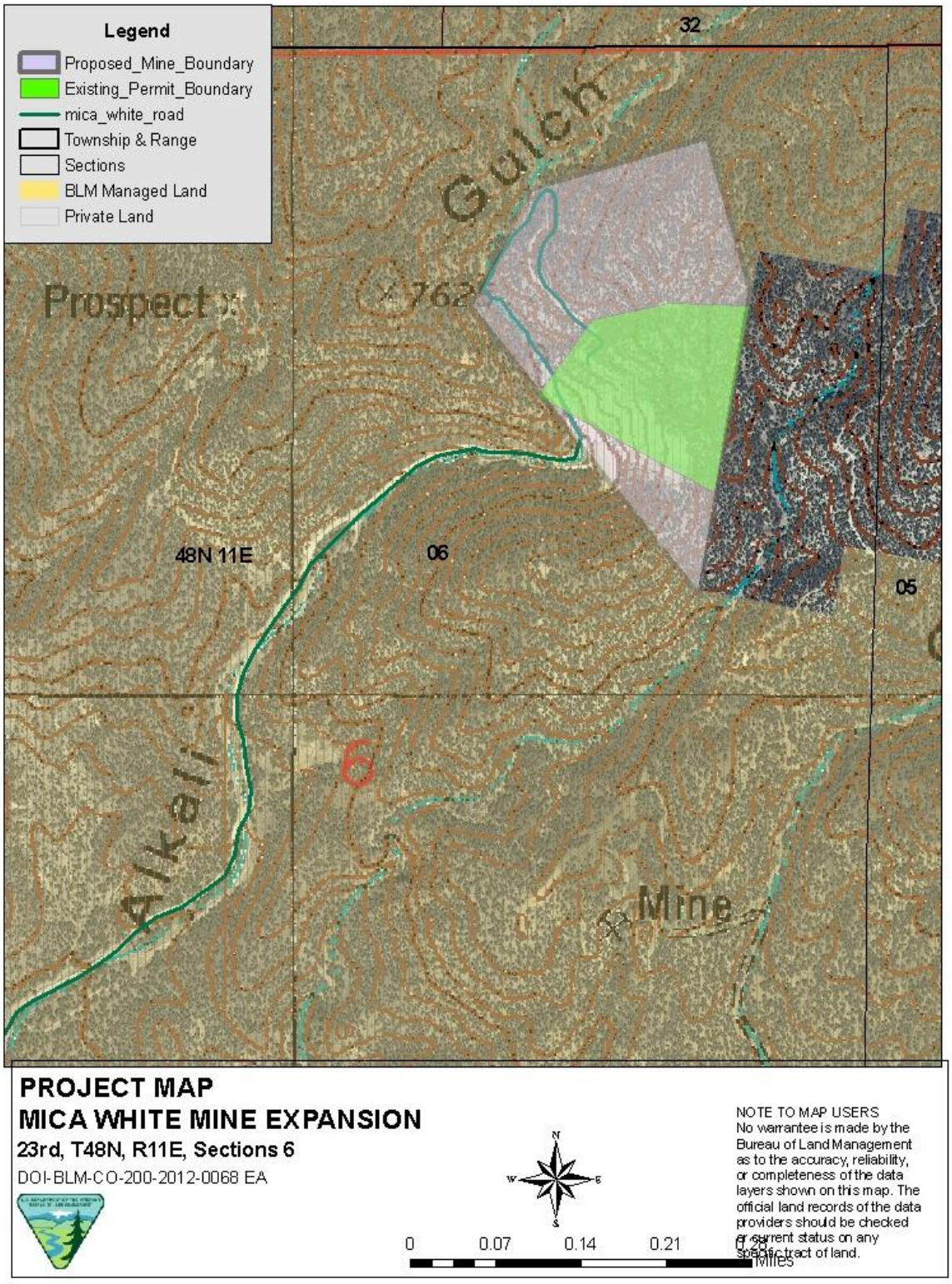
NOTE TO MAP USERS
No warrantee is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of the data layers shown on this map. The official land records of the data providers should be checked or current status on any specific tract of land.

Figure 1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Township & Range
Sections
BLM Managed Land
Private Land
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Gulch
Prospect
762
48N 11E
06
05
6
Mine
PROJECT MAP
MICA WHITE MINE EXPANSION
23rd, T48N, R11E, Sections 6
DOI-BLM-CO-200-2012-0068 EA
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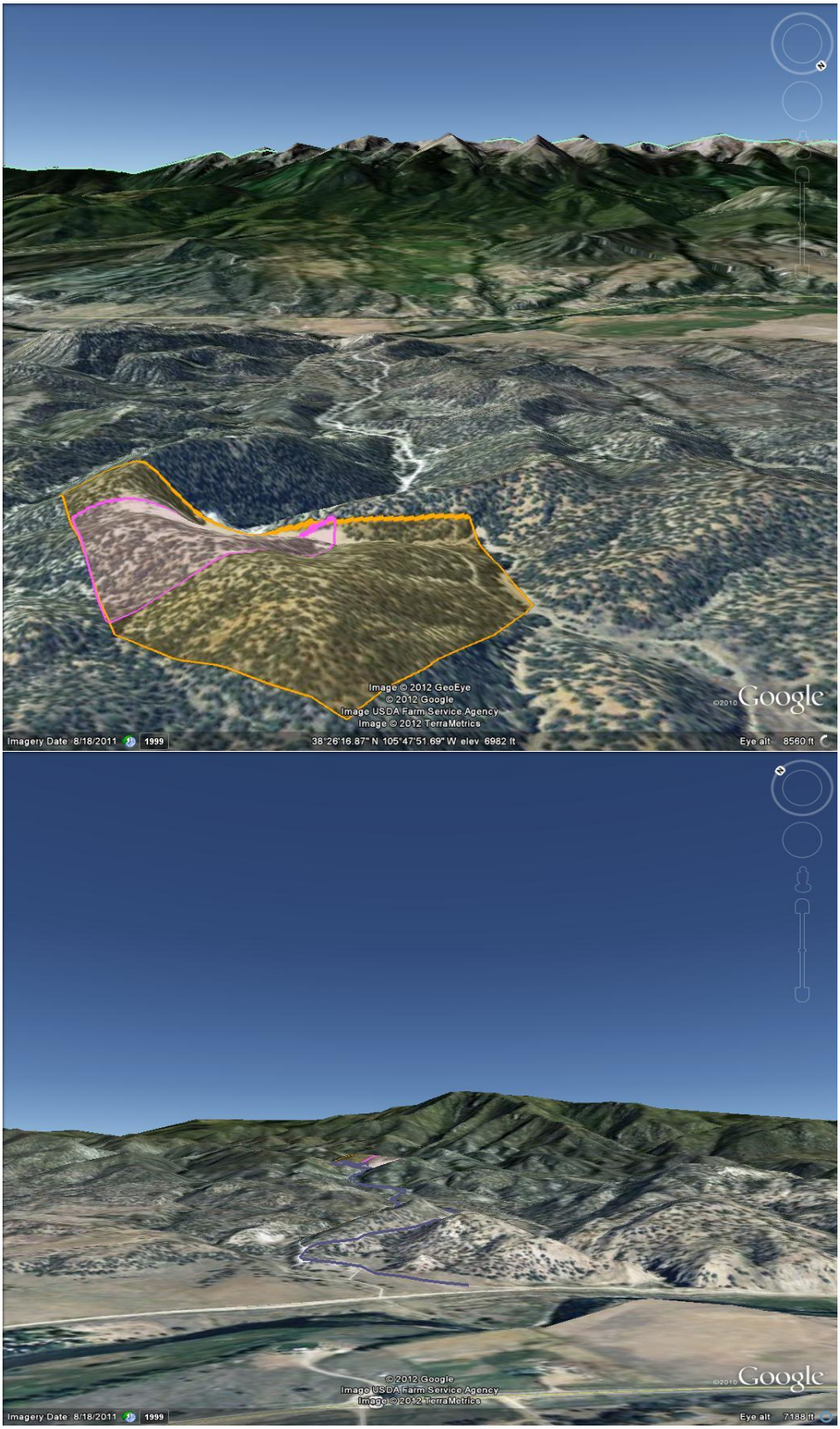
NOTE TO MAP USERS
No warrantee is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of the data layers shown on this map. The official land records of the data providers should be checked for current status on any specific tract of land.

Figure 2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© 2012 Google
Image USDA Farm Service Agency
Image © 2012 TerraMetrics
Imagery Date: 8/18/2011 1999
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Eye alt 8560 ft
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© 2012 Google
Image USDA Farm Service Agency
Image © 2012 TerraMetrics
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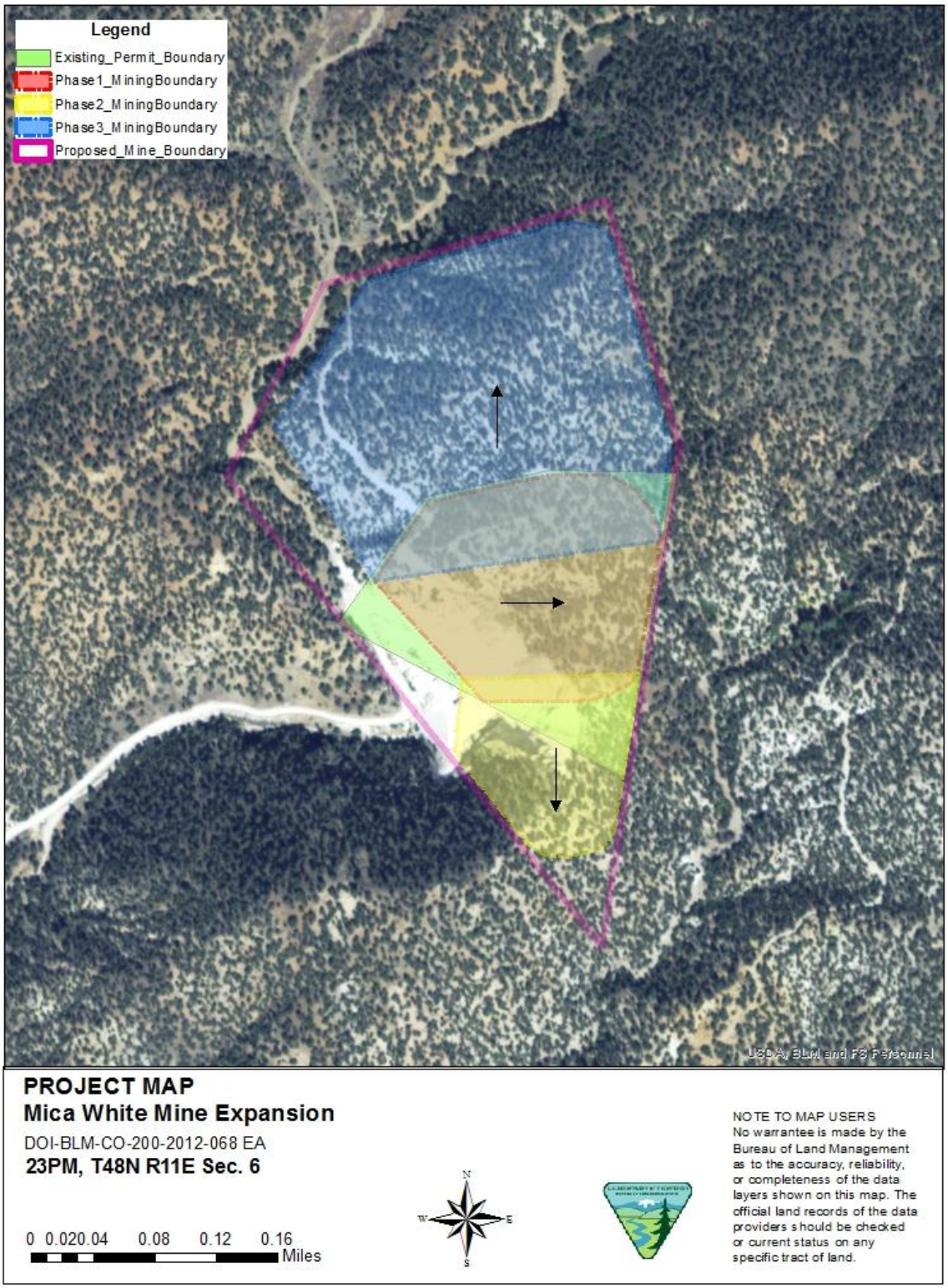
Google

Figure 3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Existing_Permit_Boundary
Phase1_MiningBoundary
Phase2_MiningBoundary
Phase3_MiningBoundary
Proposed_Mine_Boundary
USDA, BLM and FS Personnel
PROJECT MAP
Mica White Mine Expansion
DOI-BLM-CO-200-2012-068 EA
23PM, T48N R11E Sec. 6
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NOTE TO MAP USERS
No warrantee is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of the data layers shown on this map. The official land records of the data providers should be checked or current status on any specific tract of land.

Figure 4

2.2.2 No Action Alternative

The applicant could continue operating the currently active mine within the existing boundary; however, this decision would lead to further slope stability problems, and subsequent safety hazards.

2.3 ALTERNATIVES CONSIDERED BUT NOT ANALYZED IN DETAIL

None. This action was identified by the current mine operator as a need to continue mining mica, improve slope stability, and overall safety on the mine site.

CHAPTER 3 - AFFECTED ENVIRONMENT AND EFFECTS

3.1 INTRODUCTION

This section provides a description of the human and natural environmental resources that could be affected by the Proposed Action and presents comparative analyses of the direct, indirect and cumulative effects on the affected environment stemming from the implementation of the actions under the Proposed Action and other alternatives analyzed.

3.1.1 Interdisciplinary Team Review

The following table is provided as a mechanism for resource staff review, to identify those resource values with issues or potential impacts from the proposed action and/or alternatives. Those resources identified in the table as potentially impacted will be brought forward for analysis.

Resource	Initial and date	Comment or Reason for Dismissal from Analysis
Air Quality *Ty Webb, Chad Meister*	TW 1/04/13	See affected environment.
Geology/Minerals *Stephanie Carter, Melissa Smeins*	SSC, 7/11/13	See affected environment.
Soils *John Smeins*	JS, 7/25/13	See affected environment.
Water Quality Surface and Ground *John Smeins*	JS, 7/25/13	See affected environment.
Invasive Plants *John Lamman*	JL, 1/24/2013	See affected environment.

Resource	Initial and date	Comment or Reason for Dismissal from Analysis
T&E and Sensitive Species *Matt Rustand*	MR, 1/3/2013	Peregrine and Golden Eagles nest within Bighorn Sheep Canyon and Bald Eagles use the river corridor in the winter; however, no known nest sites are located within five miles of the project area. No known threatened and endangered or sensitive species are present within the action area.
Vegetation *Jeff Williams, Chris Cloninger, John Lamman*	JW, 6/11/2013	See affected environment.
Wetlands and Riparian *Dave Gilbert*	DG, 12/31/12	Riparian not present
Wildlife Aquatic *Dave Gilbert*	DG, 12/31/12	Not present
Wildlife Terrestrial *Matt Rustand*	MR, 1/3/2013	See affected environment.
Migratory Birds *Matt Rustand*	MR, 1/3/2013	See affected environment.
Cultural Resources *Monica Weimer, Michael Troyer*	MDT 5/23/13	Both prehistoric and historic sites are present in the vicinity of the area of potential effect [see Report CR-RG-13-103 (N)]. However, no historic properties were recorded during the cultural resources inventory. Therefore, the proposed action will not affect any historic properties.
Native American Religious Concerns *Monica Weimer, Michael Troyer*	MDT 5/23/13	Although aboriginal sites are present in the vicinity of the area of potential effect, no possible traditional cultural properties were located during the cultural resources inventory (see Cultural Resources section, above). There is no other known evidence that suggests the project area holds special significance for Native Americans.
Economics *Dave Epstein, Martin Weimer*	mw, 1/16/13	This action will not result in significant impacts to the socio economics of the region, however economics of the operator could be affected should the no action alternative be selected, which could eventually inhibit further production.
Paleontology *Melissa Smeins, Stephanie Carter*	SSC, 4/24/13	The geology in this area is not likely to contain recognizable paleontological resources and therefore this project will not have an adverse impact.
Visual Resources *Kalem Lenard*	KL, 6/12/2013	See affected environment.
Environmental Justice *Martin Weimer*	mw, 1/16/13	The proposed action affects areas that are rural in nature. The land adjacent to these parcels is rugged hills and open rangeland, as a result, there are no minority or low-income populations in or near the project area. As such, the proposal will not have a disproportionately high or adverse environmental effect on minority or low-income populations.
Wastes Hazardous or Solid *Stephanie Carter*	SSC, 6/13/13	See affected environment.

Resource	Initial and date	Comment or Reason for Dismissal from Analysis
Recreation *Kalem Lenard*	KL, 6/12/2013	Due to limited public access in this area and the presence of an existing mining operation recreation resources would not be impacted.
Farmlands Prime and Unique *Jeff Williams, Chris Cloninger, John Lamman*	JW, 4/29/13	Not present
Lands and Realty *Steve Craddock, Vera Matthews*	vm, 6/13/13	Not present
Wilderness, WSAs, ACECs, Wild & Scenic Rivers *Kalem Lenard*	KL, 6/12/2013	Not present.
Wilderness Characteristics *Kalem Lenard*	KL, 6/12/2013	Since the proposed action is directly adjacent to an existing active mining operation the area does not appear natural and wilderness characteristics are not present and would not be impacted by the proposed action.
Range Management *Jeff Williams, Chris Cloninger, John Lamman*	JW, 4/29/13	The activity occurs within the Badger Creek Allotment #05109 where grazing use by cattle could occur anytime between June 1 and September 30 for a short period of time. The grazing permittee is Mike Oswald. No impact to the allotment.
Forest Management *Ken Reed*	KR, 1/7/2013	See affected environment.
Cadastral Survey *Jeff Covington*	JC, 1/11/13	Several mineral claim corners fall within the proposed project area and need to be located as they are a boundary of public land. GCDB reliability in the project area is ± 30 feet.
Noise *Martin Weimer*	mw, 1/16/13	The project area is situated in the hills north of the Arkansas River. Noise levels would not increase over that generated by the current heavy equipment use.
Fire *Bob Hurley*	BH, 2/5/2103	The proposed action will not create or elevate risk factors leading to unwanted wildland fire ignition.
Law Enforcement *Steve Cunningham*	mw for SC	There are no law enforcement issues associated with this action.

The affected resources brought forward for analysis include:

- Air Quality
- Soils
- Water Quality
- Invasive Plants
- Vegetation
- Wildlife Terrestrial

- Migratory Birds
- Visual Resources
- Wastes, Hazardous or Solid
- Forest Management

3.2 PHYSICAL RESOURCES

3.2.1 AIR QUALITY AND CLIMATE

Affected Environment: Air quality in the area is generally, good to excellent. The area receives little public use and there is no single contributor to degraded air quality in the area.

Environmental Effects

Proposed Action

Direct and Indirect Impacts: The proposed action would result in increased dust generation during the construction phase. Impacts might be minor in terms of effect upon residents as the area is sparsely populated. Fugitive dust and regional haze might increase during some periods where surface winds are not sufficient to scrub the atmosphere.

Protective/Mitigation Measures: The mine operator has coordinated with the Colorado Department of Public Health and Environment to meet all state requirements for air quality and will follow the applicable regulations.

No Action Alternative

Direct and Indirect Impacts: None

Protective/Mitigation Measures: None

3.2.2 GEOLOGIC AND MINERAL RESOURCES

Affected Environment: The subject parcel is located in the Precambrian Metavolcanic and Metasedimentary Rocks, which consist of muscovite-rich feldspathic gneisses, biotite-plagioclase meta-rhyodacite tuffs, meta-basalts, and metamorphosed sedimentary breccias and tuffs. The Pleasant Valley Fault trends north and south in this area, with the proposed mining development located on the up thrown side.

Historically, lode claims have been located under the Mining Law of 1872 throughout this area. As of May 2013, there are no active claims located in the area of the subject parcel. Direct and Indirect Impacts: There are geologic and mineral resources present; however, this project will not have a direct adverse impact to the resource.

Rejecting this request would hinder the existing Mica Mine operation. This may shorten the life of the mine, which currently has a business plan based on reserves for 3-7 additional years, given the current production rate of approximately 5,000 tons per year. In addition, this mine is the main source of aquarium rock for a large portion of the state and surrounding regions. The

materials used in this mine require less processing and therefore retains a higher demand than other available deposits. The crushing process for this mine creates two unique grades of landscape rock that are not readily available from other local mines. Rejecting this request would pull this unique material off the market and come at a loss for public consumption.

Environmental Effects

Proposed Action

Direct and Indirect Impacts: A summary of direct and indirect impacts are listed below:

- Minerals removed from the Federal Reserve.
- Possible sale of aggregate to Fremont County at a reduced rate.
- Local jobs created and/or sustained in Fremont County.
- Real and property tax and sales tax being paid to local governments.
- Equipment licensing paid to local government.
- Fair market value royalties for the material will contribute to the U.S. Treasury General Fund.
- Mineral resources extracted for use in a variety of local and regional markets, such as construction projects, stream bank protection, landscaping, asphalt and concrete products.
- Benefits to the local economy through the purchase of inputs to production associated with the proposed action.

Protective/Mitigation Measures: None

No Action Alternative

Direct and Indirect Impacts: None

Protective/Mitigation Measures: None

3.2.3 SOILS (includes a finding on standard 1)

Affected Environment: The Proposed Action would increase the existing quarry operations in this area from approximately 10 acres to 30 acres. The soil affected by this proposal is the Casvare-Teaspoon complex, 20-50 percent slopes. These soils are found on mountain slopes with shallow depths and effective rooting depths of 8-20 inches. These soils are currently meeting Public Land Health Standards.

Environmental Effects

Proposed Action

Direct and Indirect Impacts: The Proposed Action would disturb and remove almost all soil from an additional 20 acres as mining progresses along the proposed location. As mining progresses material for reclamation would be reserved and used later for reclamation. Overall, the steep, thin soils of the mountainside would be replaced with a steep faces and a flat, somewhat vegetated bench at the bottom.

Protective/Mitigation Measures: Minimum vegetative reclamation success must be achieved that equals pre-mining vegetative cover of desirable species within five years. In

addition, post-mining soil movement must not exceed pre-mining conditions. If successful reclamation does not occur, additional action beyond what is proposed needs to occur to achieve a vegetative cover at least equal to the pre-mining condition. This may include importing topsoil, adding soil amendments, adding fertilizer, or other methods deemed appropriate.

No Action Alternative

Direct and Indirect Impacts: If no action is taken, the soils at the proposed location would stay as they currently are.

Protective/Mitigation Measures: None

3.2.4 WATER (SURFACE AND GROUNDWATER, FLOODPLAINS) (includes a finding on standard 5)

Affected Environment: The Proposed Action takes place in Alkali Gulch, an ephemeral tributary to the Arkansas River. The area drains the dry, pinon/juniper covered hills north of the river and perennial water is rare away from the river. Intense summer thunderstorms are frequent throughout the area that results in high flows down these types of ephemeral drainages. This can result in high amounts of sediment being delivered to the Arkansas River depending on the condition of the watershed.

Environmental Effects

Proposed Action

Direct and Indirect Impacts: The removal of material and reshaping of the hillside would result in increased runoff from the site and consequently increase soil movement until final reclamation is complete. This increased flow and soil movement would ultimately reach the Arkansas River increasing the sediment load in the river itself. After final reclamation is complete, hydrologic conditions (runoff volume and timing) at the site should be similar to pre-mining. During mining the site would be required to obtain a stormwater discharge permit from the State of Colorado that would slow down the increased runoff and capture sediment produced from the site. Overall, with proper stormwater controls and best management practices in place the Proposed Action would have little to no measurable effect on downstream water quality.

Protective/Mitigation Measures: No stormwater controls have been identified as part of the Proposed Action; however a Stormwater Management Plan and permit will be required by the State before mining begins. The Stormwater Management Plan, at a minimum, needs to include sediment detention structures that are engineered to capture the runoff from 10 year SCSII 24 hour storm event and have an outlet with an engineered channel to convey the 100 year SCSII 24 hour storm event. The sediment detention structures shall be designed for all areas upstream from them including any undisturbed, un-mined areas. These structures would need to be maintained to retain their design capacity until final reclamation is complete. All water conveyance channels or modified portions of natural channels shall be engineered for the 100 year SCSII 24 hour storm event.

No Action Alternative

Direct and Indirect Impacts: If no action is taken, the soils at the proposed location would stay as they currently are.

Protective/Mitigation Measures: None

3.3 BIOLOGICAL RESOURCES

3.3.1 INVASIVE PLANTS

Affected Environment: The project is located in an open area of mountain grasslands within a large contiguous tract of pinyon pine forest interspersed with mountain shrubs. In Fremont County these sites are very dry and warm, with less than 25 inches of precipitation annually. Grassy ground cover in the area is predominantly Blue grama (Bouteloua gracilis). Other grass species present include, but are not limited to, Western wheat (Pascopyrum smithii), Indian rice (Achnaterum hymenoides), and Needle and thread (Hesperostipa Barkworth). Invasive and non-native species that are in or near the project area include Three awn (Aristida L.), Knapweed (Centaurea L.), White top (Cardaria draba), Russian thistle (Salsola L., and Kochia (Bassia prostrate). Gambel oak (Quercus gambelii) is a common component of the understory, typically in a shrubby form. Other common understory shrubs include mountain mahogany (Cerocarpus Kunth) and wax currant (Ribes cereum).

Environmental Effects

Proposed Action

Direct and Indirect Impacts: The proposed action will result in soil disturbance that will increase the risk of invasive and non-native species infestations in the project area and dispersal to other areas.

Mitigation/Residual Effects: Monitoring and treatment of noxious weeds on the Colorado State Noxious Weed list will occur every year during the life of the mine. Monitoring and treatment of noxious weeds on the Colorado State Noxious Weed list will occur for a period of five years at the end of the mine life. A and B list species from the Colorado State Noxious Weed list will be eradicated prior to bond release. Colorado Quarries will be responsible for Monitoring and treatment of non-native species. Periodic monitoring will be done by BLM staff.

No Action Alternative

Direct and Indirect Impacts: Similar to proposed action, but with fewer acres disturbed.

Protective/Mitigation Measures: Similar to proposed action.

3.3.2 VEGETATION (includes a finding on standard 3)

Affected Environment: The climate of the analysis area averages 11 to 14 inches of precipitation annually, while July and August produce the highest amount of rainfall. December

and January are generally the driest period of the year. The optimal growing season for native plants is May 1 through August 15 (NRCS, 1995). Elevation of the analysis area is 7,500 feet.

The analysis area is dominated by a pinyon pine and juniper woodland community along with a sparse herbaceous understory component. Associated vegetation includes blue grama, sideoats grama, needle grass, Indian rice grass and mountain mahogany.

Environmental Effects

Proposed Action

Direct and Indirect Impacts: The action will remove an additional 20 acres of native vegetation from the site while in mining operation. The proposal includes a long term reclamation plan to re-vegetate the flat benches once the quarry phase is completed. It is suggested that artificial seeding be done with native vegetation that is adapted to the site.

Protective/Mitigation Measures: None.

No Action Alternative

Direct and Indirect Impacts: No additional vegetation would be removed from the site. However prolonged soil erosion could have indirect consequences to surrounding vegetation in the long term.

Protective/Mitigation Measures: None.

3.3.3 WILDLIFE TERRESTRIAL (includes a finding on standard 3)

Affected Environment: The habitat present consists of piñon-juniper/shrub mix. This habitat type is the most prevalent in the resource area. While the number of terrestrial species that occupy this habitat is great, the analysis focuses on mega-fauna that have the potential to be impacted the greatest by the proposed action.

Mule deer populations for this area are currently below Colorado Parks and Wildlife objectives. Being a successional species, deer rely on pre-climax habitat conditions. As the trend since the early 1900s has been towards more stability and approaching climax vegetative conditions, the ability of the habitat to support deer has declined. The primary causes of this trend in habitat conditions are thought to result from the elimination of wildfire from the forests, the encroachment of forest cover in formerly open grassland and shrubland habitats, and the improved soil and range management that has resulted in more stable grasslands. All these factors are to the detriment of the forb and shrub components, which are important parts of the deer diet. The project area does occur within mule deer severe winter range.

The Merriam's turkey is a fairly common resident in foothills and mesas of southern Colorado. The Merriam's turkey is common in the assessment area in suitable habitat. Merriam's are found primarily in ponderosa pine forests with an understory of Gambel's oak. Tall pines are used during all seasons for roosting. In the assessment area it is often found in foothill shrublands (mountain mahogany) and piñon-juniper woodlands.

Black bear, mountain lion, bobcat and other meso-carnivores among others likely inhabit the project area sporadically. Home ranges of these species can be very large resulting in a small probability of occupancy at any one time.

Environmental Effects

Proposed Action

Direct and Indirect Impacts: Species mentioned above may be seen or their sign identified within the project boundary. Quarry activities have been occurring adjacent to the project area using similar excavation techniques since 1992. The project action will be the 30 acres of ground disturbed by quarry operation and an additional buffer area that will be impacted by noise and human presence. The proposed action will cause an eventual loss of 30 acres of existing habitat, more importantly to mule deer winter range, to excavation. However, as stated above, this area is currently compromised by existing quarry operations and has little utility to mega-fauna.

Indirectly habitat will be lost during quarry operation hours due to noise, vehicle traffic and human presence near the boundary of the project area. Indirect losses may be substantially larger than the direct loss (Sawyer et al. 2006). However, the additional acreage is difficult to quantify because species react and adapt differently to anthropogenic features and activity. While the action area is currently being impacted by noise of quarry operations, it is likely wildlife present has become habituated to this impact and modified their activity patterns to nocturnal and crepuscular periods.

Protective/Mitigation Measures: None.

No Action Alternative

Direct and Indirect Impacts: None.

Protective/Mitigation Measures: None.

3.3.4 MIGRATORY BIRDS

Affected Environment: Piñon-juniper habitat supports the largest nesting bird species list of any upland vegetation type in the West, and this habitat type is the most prevalent in the resource area. The richness of the piñon-juniper vegetation type is important due to its middle elevation. Survey tallies in piñon-juniper are similar in species diversity to the best riparian. Several species are found in the piñon-juniper habitat and include: black-chinned hummingbird, gray flycatcher, Cassin's kingbird, gray vireo, piñon jay, juniper titmouse, black-throated gray warbler, Scott's oriole, ash-throated flycatcher, Bewick's wren, mountain chickadee, white-breasted nuthatch, and chipping sparrow.

The following birds are listed on the U.S. Fish and Wildlife Service Birds of Conservation Concern (BCC) – 2002 List for BCR 16-Southern Rockies/Colorado Plateau. These species have been identified as species that may be found in the project area, have declining populations and should be protected from habitat alterations.

The golden eagle is a bird of grasslands, shrublands, piñon-juniper woodlands, and ponderosa pine forests, but may occur in most other habitats occasionally, especially in winter. Nests are placed on cliffs and sometimes in trees in rugged areas, and breeding birds range widely over surrounding habitats.

Peregrine falcons in Colorado breed on cliffs and rock outcrops from 4,500-9000 ft in elevation. They most commonly choose cliffs located within piñon-juniper and ponderosa pine zones. These falcons feed on smaller birds almost exclusively, with White-throated swifts and rock doves being among their favored prey.

Prairie falcons nest in scattered locations throughout the state where they inhabit the grassland and cliff/rock habitat types. These falcons breed on cliffs and rock outcrops, and their diet during the breeding season is a mix of passerines and small mammals.

Gray Vireos are piñon-juniper woodland obligates. Gray Vireos usually inhabit stands dominated by juniper or thin stands of pure juniper. They construct nests of dry grasses, plant fibers, stems, and hair, often camouflaging them with sagebrush leaves.

Piñon jays range the semiarid lands of the West. The Colorado Breeding Bird Atlas map shows them south of a diagonal line drawn from the northwest corner to the southeast corner of the state. Piñon jays are piñon and juniper obligates in Colorado and nest commonly at the lower elevations of piñon-juniper woodlands, often where junipers dominate. A few nest in ponderosa pine. They prefer extensive stands far from high human activity.

Black-throated gray warblers are fairly common summer residents in piñon-juniper woodlands across the southwestern half of Colorado. Some surveys show these warblers to be the most frequently encountered birds in the piñon-juniper woodland. Black-throated gray warblers, in Colorado, are piñon-juniper obligates, preferring tall, dense piñon-juniper woodlands.

Virginia's warblers in Colorado nest between 5,000-9,000 feet in elevation. They breed most abundantly in the western quarter of the state, along the eastern slope foothills, and in the upper Arkansas River drainage. Virginia's warblers nest in dense shrublands and on scrub-adorned slopes of mesas, foothills, open ravines, and mountain valleys in semiarid country. They use scrubby brush, piñon-juniper woodland with a well-developed shrubby understory, ravines covered with scrub oak and dense shrublands--especially gambel oak. They also breed in open ponderosa pine savannahs that have a dense understory of tall shrubs.

Environmental Effects

Proposed Action

Direct and Indirect Impacts: Species mentioned above may be seen or their sign identified within the project boundary during any season of the year. Quarry activities have been occurring adjacent and to the north of the project area using similar excavation techniques since 1992. The project action will be the 30 acres of ground disturbed by quarry operation and an additional buffer area that will be impacted by noise and human presence. The proposed action

will cause an eventual loss of 30 acres of existing habitat to excavation. Outside the physical 30 acres project area, some species of migratory bird will incur additional habitat loss during quarry operation hours due to noise and human presence while others will not be affected by these activities (Gilbert and Chalfoun 2011). Species richness of newly impacted habitat will decrease as bird species not tolerant to noise will avoid the area (Francis et al. 2009). The additional acreage is difficult to quantify because species react and adapt differently to anthropogenic features and activity. During quarry development, vegetation will be removed and destroyed. If conducted during the nesting season, migratory bird nests will be destroyed, resulting in a "take."

Protective/Mitigation Measures: To be in compliance with the Migratory Bird Treaty Act (MBTA) and the Memorandum of Understanding between BLM and USFWS required by Executive Order 13186, BLM must avoid actions, where possible, that result in a "take" of migratory birds. Generally this is a seasonal restriction that requires vegetation disturbance be avoided from May 15 thru July 15. This is the breeding and brood rearing season for most Colorado migratory birds. The clearing of vegetation during quarry operation will be completed outside these dates to prevent the "take" of migratory bird nests. However, if vegetation clearing is completed prior to the nesting season, quarry operation may occur during the restricted period.

An exception to this timing limitation will be granted if nesting surveys conducted no more than one week prior to surface-disturbing activities indicate no nesting within 30 meters (100 feet) of the area to be disturbed. Surveys shall be conducted by a qualified breeding bird surveyor between sunrise and 10:00 a.m. under favorable conditions. This provision does not apply to ongoing construction, drilling, or completion activities that are initiated prior to May 15 and continue into the 60-day period

No Action Alternative

Direct and Indirect Impacts: None.

Protective/Mitigation Measures: None.

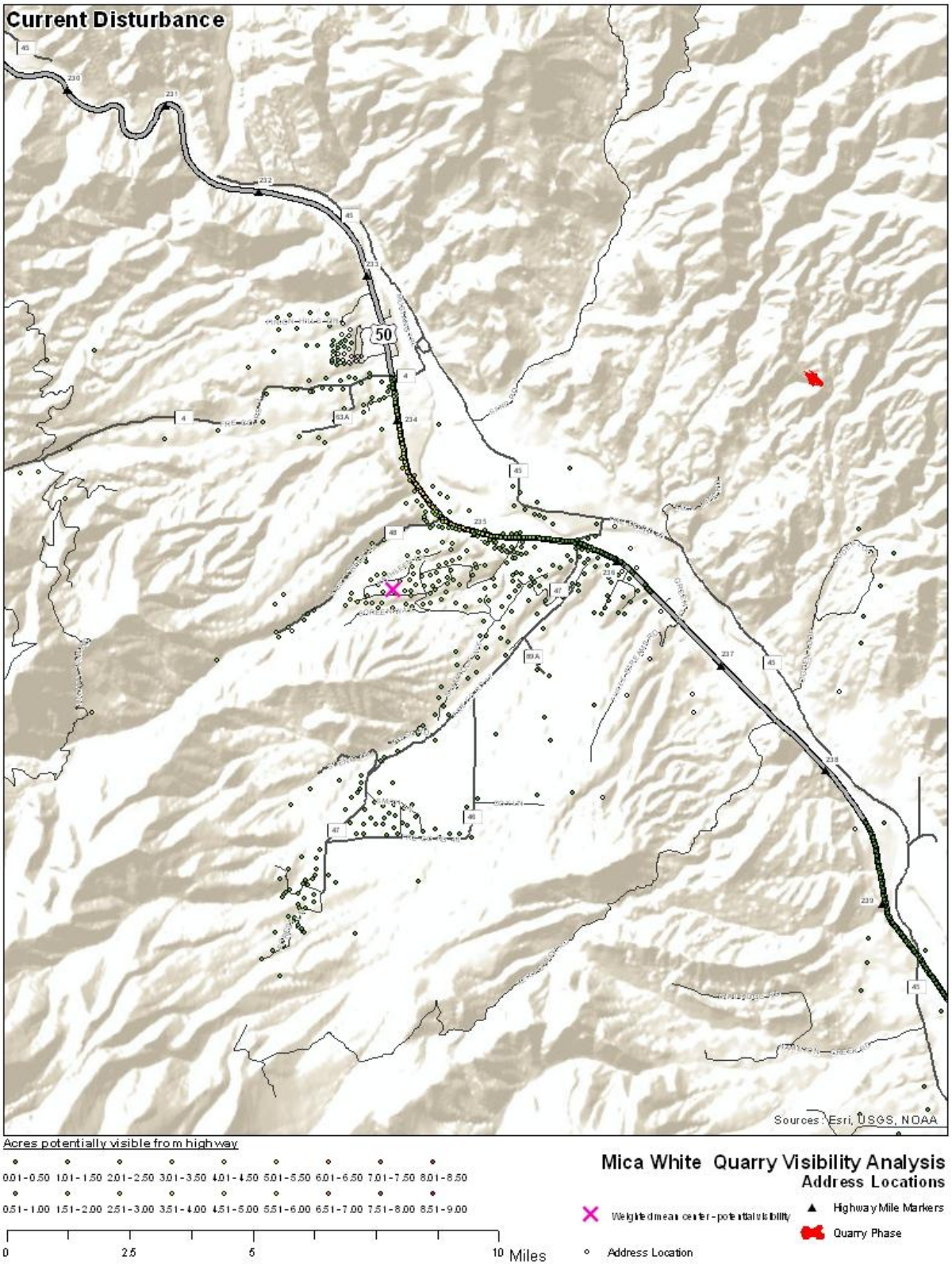
3.4 HERITAGE RESOURCES AND HUMAN ENVIRONMENT

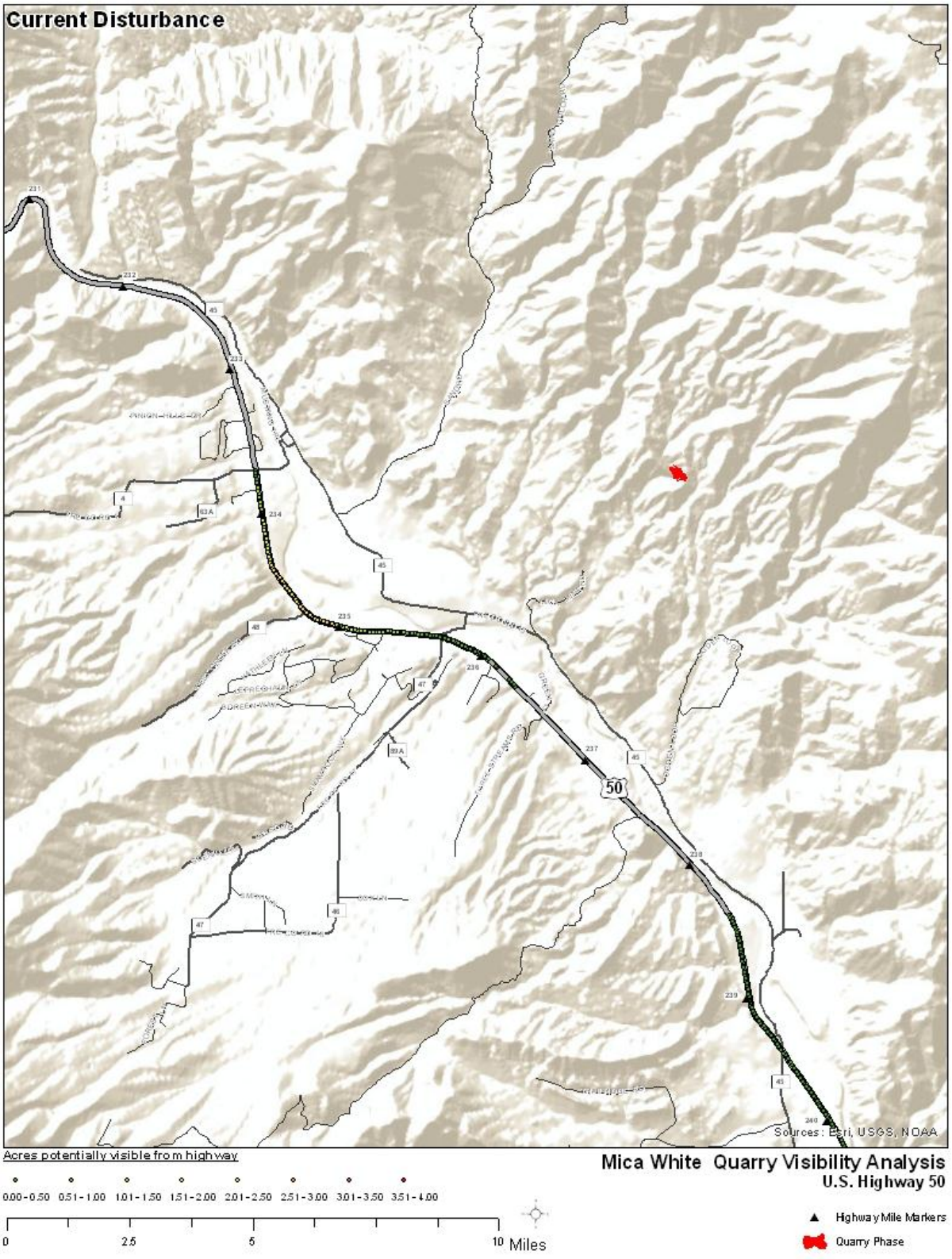
3.4.1 VISUAL RESOURCES

Affected Environment: Visual Resource Management (VRM) classes along with the corresponding VRM Objectives were established in the Royal Gorge Field Office in 1996 with the approval of the Royal Gorge Resource Area Resource Management Plan (RMP). Visual Resource Management objectives corresponding to the various management classes provide standards for analyzing and evaluating proposed projects. Projects are evaluated using the Contract Rating System to determine if it meets VRM objectives established by the RMP.

The VRM classes established for the project area is Class III. The objective for a Class III area is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.

The location of the proposed action is located approximately 1.75 miles north of Highway 50 outside of Howard, Colorado adjacent to an existing active mining operation. The Arkansas river valley is the dominate landscape feature with expansive views in all directions looking both up and down the river as well as to the mountains on either side. The ridgelines of the mountains as well as the river itself have the strongest lines along with developments such as homes, a highway, a railroad, and transmission lines. Colors tend to be dark greens associated with the fairly thick pinyon/juniper woodland that dominates the surrounding hillsides. The existing mining operation, that the proposed action is adjacent to, attracts the attention of the casual observer due to white color of the mining substrate, especially when traveling from west to east on Highway 50, but does not dominate the expansive view offered by the Arkansas River Valley and surrounding mountains. Out of 1,350 address points within 12 miles of the project area approximately 493 address points can see the current operation or the already approved footprint largely concentrated around Leprechaun Lane. The active mining operation is currently visible from 345 point locations, spaced to represent 1 second intervals along Highway 50 while traveling the posted speed limit, out of 1868 points. This equates to approximately 5 minutes and 45 seconds primarily when driving from the west to the east due to topography.


Current Disturbance
50
Sources: Esri, USGS, NOAA
Acres potentially visible from highway
0.01 - 0.50
0.51 - 1.00
1.01 - 1.50
1.51 - 2.00
2.01 - 2.50
2.51 - 3.00
3.01 - 3.50
3.51 - 4.00
4.01 - 4.50
4.51 - 5.00
5.01 - 5.50
5.51 - 6.00
6.01 - 6.50
6.51 - 7.00
7.01 - 7.50
7.51 - 8.00
8.01 - 8.50
8.51 - 9.00
0
2.5
5
10 Miles
Mica White Quarry Visibility Analysis
Address Locations
Weighted mean center - potential visibility
Address Location
Highway Mile Markers
Quarry Phase



Environmental Effects

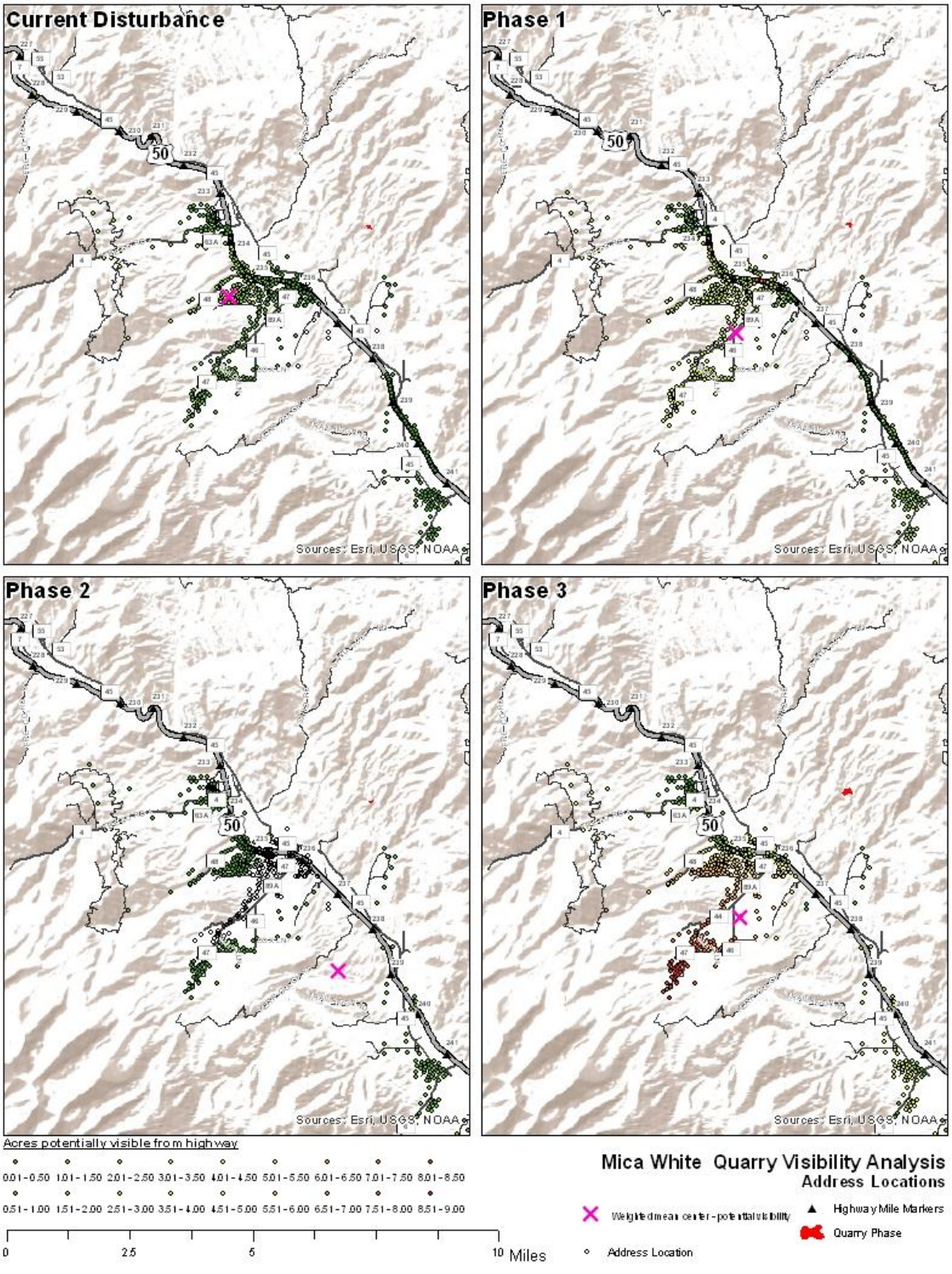
Proposed Action

Direct and Indirect Impacts: As identified above the active mining operation is currently visible from a number of residences (address points) and Highway 50 with color being the largest contrast due to the white nature of the mining material. With the expansion of the operation contrasts would be similar as the exposed white area is expanded. A GIS visibility analysis estimated that the active mining operation is visible from 493 address locations and through the proposed action this number would increase to 525 addresses. This increase would most likely be realized further south to addresses off of County Road 46 & 47 The analysis also indicates that the majority of address points would see a larger disturbance footprint than what is currently visible.

This same analysis was conducted for points along Highway 50 that represent 1 second intervals while traveling the posted speed limit. This analysis indicates that while currently the active mine is visible for 345 points, or 5 minutes and 45 seconds, this would be increased to 446 points, approximately 7 minutes and 30 seconds, as the mining operation expanded through the different phases. The area of visibility would be similar to current conditions with indications that phase three would most likely also be visible further east along the highway. Again, this increase in visibility would mostly be realized from drivers traveling west to east and much less to traveling east to west due to screening from topography.

Based on this analysis and a site visit the proposed action would increase the area of disturbance and the associated contrast in color. This increase would be realized by 32, or 6%, more addresses than what is currently impacted. There would also be an approximately 23% increase in time visible from Highway 50. It is important to note that these changes would occur slowly over the life of the mine that is anticipated to be anywhere from 15-25 years with interim reclamation occurring between phases that the GIS analysis does not take into account. This would potentially reduce the amount of disturbance visible at any given time.

Currently, the active mining operation does attract the attention of the casual observer but does not dominate the view due to the relatively small size of the contrast in relation to the expansive viewshed offered by the Arkansas River Valley and surrounding mountains as well as the location of the mine in relation to the highway and travelers dominate viewing direction. This would also be true for the proposed action and it would therefore meet the VRM class objectives for the area.


Current Disturbance
Phase 1
Phase 2
Phase 3
Sources: Esri, USGS, NOAA
Acres potentially visible from highway
0.01 - 0.50
0.51 - 1.00
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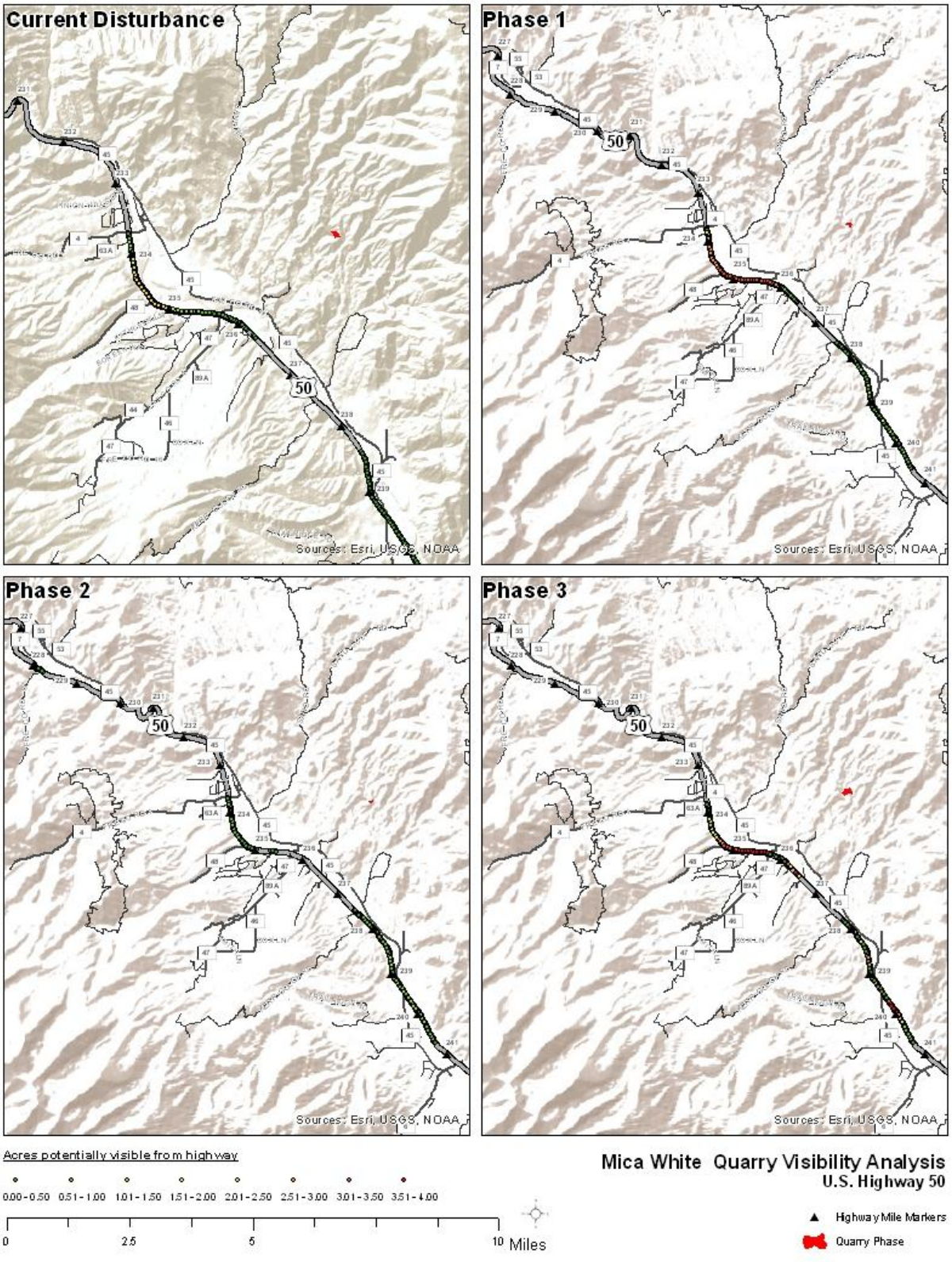
3.51 - 4.00
4.01 - 4.50
4.51 - 5.00
5.01 - 5.50
5.51 - 6.00
6.01 - 6.50
6.51 - 7.00
7.01 - 7.50
7.51 - 8.00
8.01 - 8.50
8.51 - 9.00
0
2.5
5
10 Miles
Mica White Quarry Visibility Analysis
Address Locations
Weighted mean center - potential visibility
Address Location
Highway Mile Markers
Quarry Phase



Protective/Mitigation Measures: None.

No Action Alternative

Direct and Indirect Impacts: Under the no action alternative moderate visual impacts would continue to occur but would not expand and would continue to meet the VRM class III objectives for the area.

Protective/Mitigation Measures: None.

3.4.2 WASTES, HAZARDOUS OR SOLID

Affected Environment: It is assumed that conditions associated with the proposed project site are currently clean and that no contamination is evident. No hazardous material, as defined by 42 U.S.C. 9601 (which includes materials regulated under CERCLA, RCRA and the Atomic Energy Act, but does not include petroleum or natural gas), will be used, produced, transported or stored during project implementation.

Environmental Effects

Proposed Action

Direct and Indirect Impacts: None

Protective/Mitigation Measures: Since this project involves some type of oil or fuel transfer and/or storage, an adequate spill kit is required to be onsite. The project proponent will be responsible for adhering to all applicable local, State and Federal regulations in the event of a spill, which includes following the proper notification procedures in BLM's Spill Contingency Plan.

No Action Alternative

Direct and Indirect Impacts: None

Protective/Mitigation Measures: None

Nothing in this document or in the granting of a mineral materials disposal contract by the BLM authorizes or in any way permits a release or threat of a release of hazardous substances into the environment that will require a response action or result in the incurrence of response costs.

3.5 LAND RESOURCES

3.5.1 FOREST MANAGEMENT

Affected Environment: The dominant forest type in the project area is pinyon pine and juniper. There are 2 types of juniper, Rocky Mountain and one-seed found at the project site. These forests are commonly referred to as pinyon-juniper woodlands. These are hardy, drought-tolerant trees that are well suited to the project landscape. Forest management recommendations to ensure optimum tree health include providing adequate spacing and water, and avoiding wounding of the trees.

There has been recent forest health/range/wildlife improvement treatment work in this area. This work involved commercial firewood sales and thinning dense pinyon-juniper forests. A majority of the thinning units are located below the mine along the access road.

Environmental Effects

Proposed Action

Direct and Indirect Impacts: The proposed action shall result in the loss of approximately 10 to 30 acres of pinyon-juniper forests which will slowly become reforested once the mine has closed and the site has been reclaimed.

Protective/Mitigation Measures: All trees over 5 inches in diameter shall be purchased from the BLM as fuelwood by the mining operator prior to any land clearing. The RGFO forester shall be notified 1 month in advance of any land clearing and after the mine boundary has been flagged or posted. The forester shall estimate the cords to be removed and issue the permit prior to any land clearing. The fuelwood shall be purchased by the operator at $10/cord.

Trees less than 5 inches diameter and slash from trees over 5 inches diameter shall be chipped and scattered on site or piled for future burning.

No Action Alternative

Direct and Indirect Impacts: None

Protective/Mitigation Measures: None

3.6 CUMULATIVE IMPACTS SUMMARY

Cumulative impacts occur to a few resources as a result of quarry expansion. However, there are no new cumulative impacts that are not presently considered with the existing mine. The expansion would affect an additional 20 acres on which all topsoil and all vegetation will be removed. This will result in a minor reduction of habitat for all forms of wildlife during the life of the mine. The mining process could generate additional sediment that could be carried into the local waterways affecting water quality and aquatic wildlife (offsite). This additional sedimentation can be alleviated through best management practices. Mineral materials will be permanently removed from the Federal Reserve. Visual Resources will be impacted throughout the life of the mine. The proposed action would increase the area of disturbance and the associated contrast in color. This increase in visual impacts would be realized by 32 (6%) additional addresses beyond what is currently impacted. There would also be approximately 23% increase in time visible from Highway 50. It is important to note that these changes would occur slowly over the life of the mine that is anticipated to be anywhere from 15-25 years with interim reclamation occurring between phases that the GIS analysis does not take into account. Additionally, the model did not incorporate blocked views by vegetation or the removal of a topographic high during mining. This would potentially reduce the amount of disturbance visible at any given time.

CHAPTER 4 - CONSULTATION AND COORDINATION

4.1 LIST OF PREPARERS AND PARTICIPANTS

Please see Interdisciplinary Team Review list for BLM Participants

CHAPTER 5 - REFERENCES

Bureau of Land Management. 1991. Colorado Oil and Gas Leasing Environmental Impact Statement. Lakewood, Colorado.

Bureau of Land Management. 2008 H-1790-1 National Environmental Policy Handbook. Washington, D.C.

Finding Of No Significant Impact
(FONSI)

DOI-BLM-CO-200-2012-0068 EA

Based on review of the EA and the supporting documents, I have determined that the project is not a major federal action and will not have a significant effect on the quality of the human environment, individually or cumulatively with other actions in the general area. No environmental effects from any alternative assessed or evaluated meet the definition of significance in context or intensity, as defined by 43 CFR 1508.27. Therefore, an environmental impact statement is not required. This finding is based on the context and intensity of the project as described below:

RATIONALE:

Context: Colorado Quarries has been operating the Mica White Mine in Alkali Gulch, located east of Howard, Colorado since 1992. The proposed action will change the mining footprint from 10 to 30 acres. The mine has a steep working face, which has created on-going slope stability problems. The added area will allow for the development of larger, more stable benches thereby allowing production to safely continue. The action demonstrates significance to the local neighborhoods and economy as well as regional markets for the unique mineral materials extracted from this site.

Intensity:
I have considered the potential intensity/severity of the impacts anticipated from the Mica White Mine Boundary Development Project decision relative to each of the ten areas suggested for consideration by the CEQ. With regard to each:

Impacts that may be beneficial and adverse:
Through the environmental analysis, it has become apparent that adverse impacts to the human and natural environment can be managed and mitigated.

Below is a summary of the identified impacts and associated mitigation for each of the resources areas:

- There will be minor affects to air quality, which includes the potential for fugitive dust emissions. Coordination between the operator and CDPHE will ensure state air quality standards are met.
- Soils and vegetation will be removed during the mining process. Soil movement and vegetative cover must equal pre-mining conditions at the end of reclamation. Mitigation measures are addressed in the decision record.
- There will be minor affects to visual resources. The proposed action would further contribute to the existing contrasts in this area, as well as create weak contrasts from the

existing landscape and man-made modifications. The proposed action would therefore meet VRM management objectives for this area.

Below is a summary of the benefits associated with this proposed action:

- Local jobs created and/or sustained in Fremont County.
- Real and property tax and sales tax being paid to local governments.
- Equipment licensing paid to local government.
- Fair market value royalties for the material will contribute to the U.S. Treasury General Fund.
- Mineral resources extracted for use in a variety of local and regional markets, such as aquarium rock, landscaping, and construction projects.
- Benefits to the local economy through the purchase of inputs to production associated with the proposed action.

Public health and safety:

The proposed action will not have significant impacts to air or water quality. Mitigation specified in this document related to sedimentation and hazardous materials will significantly decrease any impacts to water quality. In addition, physical safety is addressed during the mining operations through administrative and engineered controls outlined within this EA and mandated by MSHA (Mining, Safety and Health Administration).

Unique characteristics of the geographic area:

There are no unique characteristics of the geographic area e.g. WSAs, ACEC, W&S rivers, Prime and Unique Farmland or other unique characteristics.

Degree to which effects are likely to be highly controversial:

The potential for controversy associated with the effects of the proposed action on resource values is low. There is no disagreement or controversy among ID team members or reviewers over the nature of the effects on the resource values on public land by the proposed action.

Degree to which effects are highly uncertain or involve unique or unknown risks:

The mining of mineral materials has occurred in this area throughout the past few decades and although the potential risks involved can be controversial, they are neither unique nor unknown. The proposed operation consists of industry standard practices, resulting in impacts that would normally be expected from an activity being accomplished in compliance with current standards and regulations and based on sound practices. There is low potential of unknown or unique risks associated with this project due to the nature of the proposed operation and similar mining activity already occurring in the area.

Consideration of whether the action may establish a precedent for future actions with significant impacts:

There are no aspects of the current proposal that are precedent setting and implementation of the proposed project will be in accordance with standard practices that are consistent with other allowable operations involving BLM managed surface.

Consideration of whether the action is related to other actions with cumulatively significant impacts:
Currently, there is an active bentonite mine, a marble processing mill, and several active mining claims within a 5-mile radius. The material produced at this site is of a unique variety not found in any other local markets and will not have significant impacts on surrounding operations. The surrounding operations are quite small, so the combined effects of mining operations including the proposed action will not create significant cumulative impacts.

Scientific, cultural or historical resources, including those listed in or eligible for listing in the National Register of Historic Places:
Both prehistoric and historic sites are present in the vicinity of the area of potential effect [see Report CR-RG-13-103 (N)]. However, no historic properties were recorded during the cultural resources inventory. Therefore, the proposed action will not affect any historic properties. Although aboriginal sites are present in the vicinity of the area of potential effect, no possible traditional cultural properties were located during the cultural resources inventory (see Cultural Resources section, above). There is no other known evidence that suggests the project area holds special significance for Native Americans.

Threatened and endangered species and their critical habitat:
Peregrine and Golden Eagles nest within Bighorn Sheep Canyon and Bald Eagles use the river corridor in the winter; however, no known nest sites are located within five miles of the project area. No known threatened and endangered or sensitive species are present within the action area.

Any effects that threaten a violation of Federal, State or local law or requirements imposed for the protection of the environment: The proposed action conforms with the provisions of NEPA (U.S.C. 4321-4346) and FLPMA (43 U.S.C. 1701 et seq.) and is compliant with the Clean Water Act and The Clean Air Act, the National Historic Preservation Act, Migratory Bird Treaty Act (MBTA) and the Endangered Species Act.

NAME OF PREPARER: Carissa D. Snyder

SUPERVISORY REVIEW: /s/ Jay Raiford

NAME OF ENVIRONMENTAL COORDINATOR: /s/ Martin Weimer

DATE: 10/17/13

SIGNATURE OF AUTHORIZED OFFICIAL: /s/ Jay Raiford
for Keith E. Berger, Field Manager

DATE SIGNED: 10/17/13

ATTACHMENTS: Decision Record

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
ROYAL GORGE FIELD OFFICE

DECISION RECORD

Mica White Mine Boundary Development

DOI-BLM-CO-200-2012-0068-EA

DECISION: It is my decision to authorize the Proposed Action as described in the attached EA. The proposal is to extend the existing mine boundary, from 10 to 30 acres. This additional development will improve slope stability, and minimize visual impacts to the casual observer. Specifics of the mining and reclamation plans can be found in the attached EA. The proposed action involves mineral materials reserves resulting in an additive mine life of approximately 25-30 years. This decision is contingent on meeting all mitigation measures and monitoring requirements listed below.

Scoping, by posting this project on the Royal Gorge Field Office NEPA website and ongoing coordination between BLM and CDMRS was the primary mechanism used by the BLM to initially identify issues. No comments were received.

This office completed an Environmental Assessment and reached a Finding of No Significant Impact therefore an EIS will not be prepared.

RATIONALE: This mineral materials disposal will develop federal mineral material resources. Extensive mining currently exists in the area of this subject parcel, primarily along the Highway 50 corridor, due to attainable access. The minerals associated with this parcel are open to the Public Land Laws. The area is very diverse and includes grazing lands, mining operations, industrial facilities, businesses and residential areas along a main access corridor along Highway 50 from Canon City west to Salida. The addition of this mineral material disposal would have a negligible cumulative impact to the area's air quality, noise or negative alteration of social environments.

MITIGATION MEASURES\MONITORING:

Air Quality:

The mine operator has coordinated with the Colorado Department of Public Health and Environment to meet all state requirements for air quality and will follow the applicable regulations.

Soils:

Minimum vegetative reclamation success must be achieved that equals pre-mining vegetative cover of desirable species within five years. In addition, post-mining soil movement must not exceed pre-mining conditions. If successful reclamation does

not occur, additional action beyond what is proposed needs to occur to achieve a vegetative cover at least equal to the pre-mining condition. This may include importing topsoil, adding soil amendments, adding fertilizer, or other methods deemed appropriate.

Water (Surface and Groundwater, Floodplains):

No stormwater controls have been identified as part of the Proposed Action; however a Stormwater Management Plan and permit will be required by the State before mining begins. The Stormwater Management Plan, at a minimum, needs to include sediment detention structures that are engineered to capture the runoff from 10 year SCSII 24 hour storm event and have an outlet with an engineered channel to convey the 100 year SCSII 24 hour storm event. The sediment detention structures shall be designed for all areas upstream from them including any undisturbed, un-mined areas. These structures would need to be maintained to retain their design capacity until final reclamation is complete. All water conveyance channels or modified portions of natural channels shall be engineered for the 100 year SCSII 24 hour storm event.

Invasive Plants:

Monitoring and treatment of noxious weeds on the Colorado State Noxious Weed list will occur every year during the life of the mine. Monitoring and treatment of noxious weeds on the Colorado State Noxious Weed list will occur for a period of five years at the end of the mine life. A and B list species from the Colorado State Noxious Weed list will be eradicated prior to bond release. Colorado Quarries will be responsible for Monitoring and treatment of non-native species. Periodic monitoring will be done by BLM staff.

Migratory Birds:

To be in compliance with the Migratory Bird Treaty Act (MBTA) and the Memorandum of Understanding between BLM and USFWS required by Executive Order 13186, BLM must avoid actions, where possible, that result in a "take" of migratory birds. Generally this is a seasonal restriction that requires vegetation disturbance be avoided from May 15 thru July 15. This is the breeding and brood rearing season for most Colorado migratory birds. The clearing of vegetation during quarry operation will be completed outside these dates to prevent the "take" of migratory bird nests. However, if vegetation clearing is completed prior to the nesting season, quarry operation may occur during the restricted period.

An exception to this timing limitation will be granted if nesting surveys conducted no more than one week prior to surface-disturbing activities indicate no nesting within 30 meters (100 feet) of the area to be disturbed. Surveys shall be conducted by a qualified breeding bird surveyor between sunrise and 10:00 a.m. under favorable conditions. This provision does not apply to ongoing construction, drilling, or completion activities that are initiated prior to May 15 and continue into the 60-day period

Wastes, Hazardous or Solid:

Since this project involves some type of oil or fuel transfer and/or storage, an adequate spill kit is required to be onsite. The project proponent will be responsible for adhering to all applicable local, State and Federal regulations in the event of a spill, which includes following the proper notification procedures in BLM's Spill Contingency Plan.

Forest Management:

All trees over 5 inches in diameter shall be purchased from the BLM as fuelwood by the mining operator prior to any land clearing. The RGFO forester shall be notified 1 month in advance of any land clearing and after the mine boundary has been flagged or posted. The forester shall estimate the cords to be removed and issue the permit prior to any land clearing. The fuelwood shall be purchased by the operator at $10/cord.

Trees less than 5 inches diameter and slash from trees over 5 inches diameter shall be chipped and scattered on site or piled for future burning.

PROTEST/APPEALS: This decision shall take effect immediately upon the date it is signed by the Authorized Officer, and shall remain in effect while any appeal is pending unless the Interior Board of Land Appeals issues a stay (43 CFR 2801.10(b)). Any appeal of this decision must follow the procedures set forth in 43 CFR Part 4. Within 30 days of the decision, a notice of appeal must be filed in the office of the Authorized Officer at the Royal Gorge Field Office, 3028 E. Main, Cañon City, Colorado, 81212. If a statement of reasons for the appeal is not included with the notice, it must be filed with the Interior Board of Land Appeals, Office of Hearings and Appeals, U.S. Department of the Interior, 801 North Quincy St., Suite 300, Arlington, VA 22203 within 30 days after the notice of appeal is filed with the Authorized Officer.

SIGNATURE OF AUTHORIZED OFFICIAL: /s/ Jay Raiford
for Keith E. Berger, Field Manager

DATE SIGNED: 10/17/13

ATTACHMENTS: